

ORIGINAL

IN THE UNITED STATES COURT OF FEDERAL CLAIMS

FILED

MAR 24 2017

**U.S. COURT OF
FEDERAL CLAIMS**

LARRY GOLDEN,

Plaintiff,

V.

UNITED STATES,

Defendant.

1:13-cv-307-SGB

Judge Susan G. Braden

March 22, 2017

 By leave of the Judge

MOTION TO SUPPLEMENT PLAINTIFF'S CLAIM CHART

Pursuant to the Court's February 3, 2017 Order (Dkt. No. 100) ("dismissing Plaintiff's motions without prejudice to being renewed"), the Plaintiff, Larry Golden is providing the Court of Federal Claims ("COFC"), with its renewed "Motion for Entry of Devices Supplied to the Government" (Dkt. No. 82)

After the Plaintiff filed the "Plaintiff's Amended Complaint" (Dkt. No. 68) and after the Plaintiff filed the "Motion for Entry of Devices Supplied to the Government" (Dkt. No. 82), the Defendant (Government) introduced into record in its "Motion to Dismiss Pursuant to Rules 12(b)(1) and (6)" (Dkt. No. 88; Exhibits 1-4, 6-8, and 13) new evidence of devices the Plaintiff believes infringes his patented invention(s). The devices are relevant to this case.

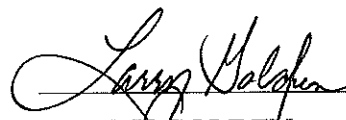
According to Federal Rules of Civil Procedure; Title III. Pleading and Motions; Rule 15(d) Supplemental Pleadings: On motion and reasonable notice, the court may, on just terms, permit a party to serve a supplemental pleading setting out any transaction, occurrence, or event that happened after the date of the pleading to be supplemented. The court may permit

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supplementation even though the original pleading is defective in stating a claim or defense. The court may order that the opposing party plead to the supplemental pleading within a specified time.

Respectfully submitted,



LARRY GOLDEN
Plaintiff

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing “Motion to Supplement Plaintiff’s Claim Chart” was sent on March 22, 2017 via U.S. Postal Service “Priority Express Mail”, to:

NICHOLAS J. KIM
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**NATIONAL SCIENCE FOUNDATION (NSF) / APPLE / SAMSUNG
CHART OUTLINE: LARRY GOLDEN vs. THE UNITED STATES
(CASE NUMBER: 13-307 C)**

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EAGER: Mobile-Phone Based Single Molecule Imaging for DNA	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims 118, 92, 25, 12, 124, 99
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INSPIRE Track 2: Public Health Nanotechnology and Mobility (PHeNoM)	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims 118, 92, 25, 12, 124, 99
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PFI:BIC Human-Centered Smart-Integration of Mobile Imaging and Sensing	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims 118, 92, 25, 12, 124, 99
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EFRI-BioFlex: Cellphone-Based Digital Immunoassay Platform	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims 118, 92, 25, 12, 124, 99
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"Multimode Smartphone Biosensor"	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims 118, 92, 25, 12, 124, 99
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EAGER: Lab-in-a-Smartphone	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims 118, 92, 25, 12, 124, 99
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PFI-BIC "Pathtracker: Smartphone-based for Mobile Infectious Disease Detection	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims 118, 92, 25, 12, 124, 99
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I-Corps: Ultra-Sensitive Lateral Flow Reporters / Lab-on-Phone Platform	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims 118, 92, 25, 12, 124, 99
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Apple's iPhone / iPad Camera Biosensor for Facial Heart Rate Monitor	Patent #: 9,096,189; Independent Claim 1	Patent #: RE 43,990; Dependent Claims 30, 99, 118, 12, 28, 25, 20, 32
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Apple's iPhone 5, 5c, 5s, 6, 6 Plus and the iPad interconnected to the Apple Watch	Patent #: 9,096,189; Independent Claim 1	Patent #: RE 43,990; Dependent Claims 25, 95, 99, 12, 28, 20, 32, 30
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Apple's iPhone / iPad (monitoring equipment); Apple Watch (detection device); interconnected to the August Smart Lock (locking device)	Patent #: 9,096,189; Independent Claim 1	Patent #: RE 43,990; Dependent Claims 22, 46, 80, 12, 28, 25, 20, 32, 30
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Apple's iPhone / iPad (monitoring equipment); Apple's HomeKit (interface / gateway); August Connect (interface / gateway); interconnected to the August Smart Lock (locking device)	Patent #: 9,096,189; Independent Claim 1	Patent #: RE 43,990; Dependent Claims 22, 46, 80, 12, 28, 25, 20, 32, 30
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Apple's iPhone / iPad (monitoring equipment); Apple Watch (detection device); interconnected to Ford's MyFord Mobile App (locking device)	Patent #: 9,096,189; Independent Claim 1	Patent #: RE 43,990; Dependent Claims 22, 46, 80, 12, 28, 25, 20, 32, 30
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Samsung Galaxy s6 "Fingertip Heart Rate Monitor"	Patent #: 9,096,189; Independent Claim 1	Patent #: RE 43,990; Dependent Claims 30, 118, 12, 28, 25, 20, 32
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Samsung Galaxy s6 interconnected to the "Samsung Gear S2 Smartwatch"	Patent #: 9,096,189; Independent Claim 1	Patent #: RE 43,990; Dependent Claims 25, 95, 99, 12, 28, 20, 32, 30
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Samsung Galaxy s6 (smartphone) and Samsung Gear S2 (smartwatch) interconnected to the "Yale Assure Lock" (locking device)	Patent #: 9,096,189; Independent Claim 1	Patent #: RE 43,990; Dependent Claims 22, 46, 80, 12, 28, 25, 20, 32, 30
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Samsung Galaxy s6 (smartphone) and "Samsung SmartThings Hub" (interface-gateway) interconnected to the Yale Assure Lock (locking device)	Patent #: 9,096,189; Independent Claim 1	Patent #: RE 43,990; Dependent Claims 22, 46, 80, 12, 28, 25, 20, 32, 30
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Samsung Galaxy s6 (smartphone) and Samsung Gear S2 (smartwatch) interconnected to the "Volkswagen Car-Net e-Remote" (locking device)	Patent #: 9,096,189; Independent Claim 1	Patent #: RE 43,990; Dependent Claims 22, 46, 80, 12, 28, 25, 20, 32, 30
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EAGER: Mobile-Phone Based Single Molecule Imaging for DNA	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims
<p>The National Science Foundation awards a grant of \$299,995 to University of California, Los Angeles... This project, entitled "EAGER: Mobile-phone based single molecule imaging of DNA to analyze copy-number variations in genome," is under the direction of Aydogan Ozcan... This award starts October 1, 2014 and ends September 30, 2016... Award: 1444240... PI Name: Ozcan, Aydogan... Award Date: June 13, 2014... a transformative fluorescent microscopy system that is integrated onto a mobile-phone for imaging of single DNA molecules... field-portable imagine interface running on a smart-phone... will initially utilize state-of-art mobile phones... create roadmap for next generation mobile phones and other consumer electronics devices toward new imaging, sensing and diagnostics... shaping the landscape of future mobile-health and telemedicine applications... new landmarks for mobile imaging and diagnostic tools... other consumer electronics devices for use in mobile-health and telemedicine.</p>	<p>A multi-sensor detection system for detecting at least one explosive, nuclear, contraband, chemical, biological, human, radiological agent, or compound, comprising:</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>This fluorescence microscope on a smart phone ; designed by integrating a laser diode, a disposable nanochannel chip, an external lens and a thin-film based emission filter in a robust attachment created by 3D printing.</p> <p>Nervous system disorders or even drug resistance in infectious diseases, including early detection of cancer.</p>	<p>a plurality of sensors for detecting at least one chemical, biological, radiological, explosive, nuclear, human, or contraband agent or compound, capable of being disposed within, on, upon or adjacent a multi-sensor detection device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>This fluorescence microscope on a smart phone ; designed by integrating a laser diode, a disposable nanochannel chip, an external lens and a thin-film based emission filter in a robust attachment created by 3D printing.</p> <p>Nervous system disorders or even drug resistance in infectious diseases, including early detection of cancer.</p>	<p>monitoring equipment comprising at least one of a computer, personal computer (PC), laptop, notebook PC, handheld, cell phone, personal digital assistant (PDA) or smart phone for at least one of a receipt or transmission of signals therebetween;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>Cellular carriers have extremely precise GPS measurements of the locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range—which may be dozens—and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast initial connection along with improving GPS accuracy.</p>	<p>at least one cell phone tower interconnected to the monitoring equipment for sending signals thereto and receiving signals therefrom or at least one satellite capable of transmitting signals to the monitoring equipment;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one satellite or at least one cell phone tower capable of signal communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one internet connection capable of communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>Cellular carriers have precise GPS measurements of locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast connection along with improving GPS accuracy.</p>	<p>whereupon a signal sent to a receiver of the multi-sensor detection device from a satellite; or to a cell phone tower; or through at least one of a short range radio frequency or a long range radio frequency; causes a signal to be sent to the monitoring equipment that includes at least one of location data or sensor data;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>A transformative fluorescent microscopy system that is integrated onto a mobile-phone for imaging of single DNA molecules...field-portable imagine interface running on a smart-phone...will initially utilize state-of-art mobile phones...create roadmap for next generation mobile phones and other consumer electronics devices toward new imaging, sensing and diagnostics...shaping the landscape of future mobile-health and telemedicine applications...new landmarks for mobile imaging and diagnostic tools...other consumer electronics devices for use in mobile-health and telemedicine. This fluorescence microscope on a smart phone ; designed by integrating a laser diode, a disposable nanochannel chip, an external lens and a thin-film based emission filter in a robust attachment created by 3D printing. Nervous system disorders or even drug resistance in infectious diseases, including early detection of cancer.</p>	<p>wherein the monitoring equipment or multi-sensor detection device receives a signal via any of one or more products of any product grouping categories;</p>	<p>124. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of: sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices...; similarities in material composition of at least one of: steel, stainless steel, composites, brass, copper, aluminum, fiber, silicon, plastic, combining of materials parts or elements to form a whole; similarities in security problems of at least one of: theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
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<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long range radio frequency connection, or short range radio frequency (RF) connection is capable of signal communication with the transmitter, a receiver of the monitoring equipment, the multi-sensor detection device, or transceivers of the products;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.</p>	<p>wherein the monitoring equipment is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan or signature such that the monitoring device that is at least one of the computer, the laptop, the notebook, the PC, the handheld, the cell phone, the PDA, or the smart phone is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>99. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting biometric and authentication data including, but is not limited to, fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse and signature.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, long range radio frequency, and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

INSPIRE Track 2: Public Health Nanotechnology and Mobility (PHeNoM)	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims
<p>The National Science Foundation hereby awards a grant of \$3,000,000 to Cornell University... This project, entitled "INSPIRE Track 2: Public Health, Nanotechnology, and Mobility (PHeNoM)", "is under the direction of David C. Erickson, Aydogan Ozcan, Saurabh Mehta, Deborah Estrin, Tanzeem Choudhury... This award starts August 15, 2014 and ends July 31, 2019... Award: 1343058... PI Name: Erickson, David... Award Date... August 11, 2014... first demonstrate that this roadblock to the deployment of lab-on-chip technology can be fundamentally altered by taking advantage of the now ubiquitous installed base of smartphone technology... we focus our efforts on developing and deploying three systems that can have an immediate impact on advancing personalized healthcare in the US: a Stress-Phone for long term stress management, a Nutri-Phone for bloodwork enabled nutritional awareness, and a Hema-Phone for monitoring viral loading in HIV+ patient</p>	<p>A multi-sensor detection system for detecting at least one explosive, nuclear, contraband, chemical, biological, human, radiological agent, or compound, comprising:</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>The fusion of physical sensing and molecular assays on mobile platforms will enable healthcare diagnostics that are far more telling than what is possible with either technology alone, thereby enabling the earlier-stage detection of disease. New bio-info-mobile diagnostics that intertwine advantages of mobility, physical sensing, and biomolecular assays.</p>	<p>a plurality of sensors for detecting at least one chemical, biological, radiological, explosive, nuclear, human, or contraband agent or compound, capable of being disposed within, on, upon or adjacent a multi-sensor detection device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>The fusion of physical sensing and molecular assays on mobile platforms will enable healthcare diagnostics that are far more telling than what is possible with either technology alone, thereby enabling the earlier-stage detection of disease. New bio-info-mobile diagnostics that intertwine advantages of mobility, physical sensing, and biomolecular assays.</p>	<p>monitoring equipment comprising at least one of a computer, personal computer (PC), laptop, notebook PC, handheld, cell phone, personal digital assistant (PDA) or smart phone for at least one of a receipt or transmission of signals therebetween;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>Cellular carriers have extremely precise GPS measurements of the locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range—which may be dozens—and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast initial connection along with improving GPS accuracy.</p>	<p>at least one cell phone tower interconnected to the monitoring equipment for sending signals thereto and receiving signals therefrom or at least one satellite capable of transmitting signals to the monitoring equipment;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one satellite or at least one cell phone tower capable of signal communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one internet connection capable of communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>Cellular carriers have precise GPS measurements of locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast connection along with improving GPS accuracy.</p>	<p>whereupon a signal sent to a receiver of the multi-sensor detection device from a satellite; or to a cell phone tower; or through at least one of a short range radio frequency or a long range radio frequency; causes a signal to be sent to the monitoring equipment that includes at least one of location data or sensor data;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>First demonstrate that this roadblock to the deployment of lab-on-chip technology can be fundamentally altered by taking advantage of the now ubiquitous installed base of smartphone technology...we focus our efforts on developing and deploying three systems that can have an immediate impact on advancing personalized healthcare in the US: a Stress-Phone for long term stress management, a Nutri-Phone for bloodwork enabled nutritional awareness, and a Hema-Phone for monitoring viral loading in HIV+ patient. The fusion of physical sensing and molecular assays on mobile platforms will enable healthcare diagnostics that are far more telling than what is possible with either technology alone, thereby enabling the earlier-stage detection of disease. New bio-info-mobile diagnostics that intertwine advantages of mobility, physical sensing, and biomolecular assays.</p>	<p>wherein the monitoring equipment or multi-sensor detection device receives a signal via any of one or more products of any product grouping categories;</p>	<p>124. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of: sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices...; similarities in material composition of at least one of: steel, stainless steel, composites, brass, copper, aluminum, fiber, silicon, plastic, combining of materials parts or elements to form a whole; similarities in security problems of at least one of: theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
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<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long range radio frequency connection, or short range radio frequency (RF) connection is capable of signal communication with the transmitter, a receiver of the monitoring equipment, the multi-sensor detection device, or transceivers of the products;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.</p>	<p>wherein the monitoring equipment is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan or signature such that the monitoring device that is at least one of the computer, the laptop, the notebook, the PC, the handheld, the cell phone, the PDA, or the smart phone is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>99. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting biometric and authentication data including, but is not limited to, fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse and signature.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, long range radio frequency, and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

PFI:BIC Human-Centered Smart-Integration of Mobile Imaging and Sensing	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims
<p>The National Science Foundation hereby awards a grant of \$1,000,000 to University of California, Los Angeles... This project, entitled "PFI: BIC Human-Centered Smart-Integration of Mobile Imaging and Sensing Tools with Machine Learning for Ubiquitous Quantification of Waterborne and Airborne Nanoparticles," is under the direction of Aydogan Ozcan, Mihaela van der Schaar... This awards starts October 1, 2015 and ends September 30, 2018... Award: 1533983... PI Name: Ozcan, Aydogan... Award Date: August 6, 2015... PFI: bic – Human-Centered Smart-Integration of Mobile Imaging & Sensing Tools with Machine Learning and Big Data Analysis for Ubiquitous and Cost-effective Quantification of Waterborne & Airborne Nanoparticles {PI: Aydogan Ozcan – UCLA}... Another approached that will be implemented is the development of highly sensitive multi-modal (e.g. multi-color fluorescence & dark-field) mobile-phone based microscopy platforms for distributed nanoparticle imaging and sensing</p>	<p>A multi-sensor detection system for detecting at least one explosive, nuclear, contraband, chemical, biological, human, radiological agent, or compound, comprising:</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>The proposed devices will be easy to translate into various biomedical, chemical and material science applications, impacting the use of nanotechnologies based on cost-effective integration of computational imaging and mobile-phone based sensing techniques and rapid analysis and smart service systems on mass-produced chips embedded in mobile phones.</p>	<p>a plurality of sensors for detecting at least one chemical, biological, radiological, explosive, nuclear, human, or contraband agent or compound, capable of being disposed within, on, upon or adjacent a multi-sensor detection device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>The proposed devices will be easy to translate into various biomedical, chemical and material science applications, impacting the use of nanotechnologies based on cost-effective integration of computational imaging and mobile-phone based sensing techniques and rapid analysis and smart service systems on mass-produced chips embedded in mobile phones.</p>	<p>monitoring equipment comprising at least one of a computer, personal computer (PC), laptop, notebook PC, handheld, cell phone, personal digital assistant (PDA) or smart phone for at least one of a receipt or transmission of signals therebetween;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>Cellular carriers have extremely precise GPS measurements of the locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range—which may be dozens—and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast initial connection along with improving GPS accuracy.</p>	<p>at least one cell phone tower interconnected to the monitoring equipment for sending signals thereto and receiving signals therefrom or at least one satellite capable of transmitting signals to the monitoring equipment;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one satellite or at least one cell phone tower capable of signal communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one internet connection capable of communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>Cellular carriers have precise GPS measurements of locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast connection along with improving GPS accuracy.</p>	<p>whereupon a signal sent to a receiver of the multi-sensor detection device from a satellite; or to a cell phone tower; or through at least one of a short range radio frequency or a long range radio frequency; causes a signal to be sent to the monitoring equipment that includes at least one of location data or sensor data;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>PFI: bic – Human-Centered Smart-Integration of Mobile Imaging & Sensing Tools with Machine Learning and Big Data Analysis for Ubiquitous and Cost-effective Quantification of Waterborne & Airborne Nanoparticles {PI: Aydogan Ozcan – UCLA} ... Another approached that will be implemented is the development of highly sensitive multi-modal (e.g. multi-color fluorescence & dark-field) mobile-phone based microscopy platforms for distributed nanoparticle imaging and sensing. The proposed devices will be easy to translate into various biomedical, chemical and material science applications, impacting the use of nanotechnologies based on cost-effective integration of computational imaging and mobile-phone based sensing techniques and rapid analysis and smart service systems on mass-produced chips embedded in mobile phones.</p>	<p>wherein the monitoring equipment or multi-sensor detection device receives a signal via any of one or more products of any product grouping categories;</p>	<p>124. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of: sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices...; similarities in material composition of at least one of: steel, stainless steel, composites, brass, copper, aluminum, fiber, silicon, plastic, combining of materials parts or elements to form a whole; similarities in security problems of at least one of: theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
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<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long range radio frequency connection, or short range radio frequency (RF) connection is capable of signal communication with the transmitter, a receiver of the monitoring equipment, the multi-sensor detection device, or transceivers of the products;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.</p>	<p>wherein the monitoring equipment is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan or signature such that the monitoring device that is at least one of the computer, the laptop, the notebook, the PC, the handheld, the cell phone, the PDA, or the smart phone is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>99. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting biometric and authentication data including, but is not limited to, fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse and signature.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, long range radio frequency, and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

EFRI-BioFlex: Cellphone-Based Digital Immunoassay Platform	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims
<p>The National Science Foundation hereby awards a grant of \$2,000,000 to University of California, Los Angeles... This project, entitled "EFRI – BioFlex: Cellphone-based Digital Immunoassay Platform for High-throughput Sensitive and Multiplexed Detection and Distributed Spatio-Temporal Analysis of Influenza," is under the direction of Aydogan Ozcan, Dino Di Carlo, Omai B. Garner, Michael Lewinski... This award is effective September 1, 2013 and expires August 31, 2017... Award: 1332275... PI Name: Ozcan, Aydogan... Award Date: July 16, 2013... field-portable telemedicine platform... as well as cellphone based multi-spectral fluorescent cytometry and computational microscopy tools... The number of drops lighting up (corresponding to specific color- and shape-coded particles with different subtype-specific antibodies) will then be imaged all in parallel using a cellphone-based multi-spectral imaging system... custom-developed smart application running on the cellphone, will analyzed for rapid detection of various influenza subtypes.</p>	<p>A multi-sensor detection system for detecting at least one explosive, nuclear, contraband, chemical, biological, human, radiological agent, or compound, comprising:</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>There is an urgent need for portable, rapid, sensitive and specific influenza surveillance systems worldwide. Increasing sensitivity and multiplexing to multiple flu subtypes using a wide-field computational imaging platform running on a cellphone. The same field-portable digital immunoassay platform running on cellphones used in wide range diagnostics.</p>	<p>a plurality of sensors for detecting at least one chemical, biological, radiological, explosive, nuclear, human, or contraband agent or compound, capable of being disposed within, on, upon or adjacent a multi-sensor detection device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>There is an urgent need for portable, rapid, sensitive and specific influenza surveillance systems worldwide. Increasing sensitivity and multiplexing to multiple flu subtypes using a wide-field computational imaging platform running on a cellphone. The same field-portable digital immunoassay platform running on cellphones used in wide range diagnostics.</p>	<p>monitoring equipment comprising at least one of a computer, personal computer (PC), laptop, notebook PC, handheld, cell phone, personal digital assistant (PDA) or smart phone for at least one of a receipt or transmission of signals therebetween;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>Cellular carriers have extremely precise GPS measurements of the locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range—which may be dozens—and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast initial connection along with improving GPS accuracy.</p>	<p>at least one cell phone tower interconnected to the monitoring equipment for sending signals thereto and receiving signals therefrom or at least one satellite capable of transmitting signals to the monitoring equipment;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one satellite or at least one cell phone tower capable of signal communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one internet connection capable of communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>Cellular carriers have precise GPS measurements of locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and WiFi network and cell tower locations are additional factors in providing a fast connection along with improving GPS accuracy.</p>	<p>whereupon a signal sent to a receiver of the multi-sensor detection device from a satellite; or to a cell phone tower; or through at least one of a short range radio frequency or a long range radio frequency; causes a signal to be sent to the monitoring equipment that includes at least one of location data or sensor data;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>field-portable telemedicine platform...as well as cellphone based multi-spectral fluorescent cytometry and computational microscopy tools...The number of drops lighting up (corresponding to specific color- and shape-coded particles with different subtype-specific antibodies) will then be imaged all in parallel using a cellphone-based multi-spectral imaging system...custom-developed smart application running on the cellphone, will analyzed for rapid detection of various influenza subtypes. There is an urgent need for portable, rapid, sensitive and specific influenza surveillance systems worldwide. Increasing sensitivity and multiplexing to multiple flu subtypes using a wide-field computational imaging platform running on a cellphone. The same field-portable digital immunoassay platform running on cellphones used in wide range diagnostics.</p>	<p>wherein the monitoring equipment or multi-sensor detection device receives a signal via any of one or more products of any product grouping categories;</p>	<p>124. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of: sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices...; similarities in material composition of at least one of: steel, stainless steel, composites, brass, copper, aluminum, fiber, silicon, plastic, combining of materials parts or elements to form a whole; similarities in security problems of at least one of: theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
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<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long range radio frequency connection, or short range radio frequency (RF) connection is capable of signal communication with the transmitter, a receiver of the monitoring equipment, the multi-sensor detection device, or transceivers of the products;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.</p>	<p>wherein the monitoring equipment is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan or signature such that the monitoring device that is at least one of the computer, the laptop, the notebook, the PC, the handheld, the cell phone, the PDA, or the smart phone is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>99. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting biometric and authentication data including, but is not limited to, fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse and signature.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, long range radio frequency, and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

Multimode Smartphone Biosensor	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims
<p>The National Science Foundation hereby awards a grant of \$600,000 to the Board of Trustees of the University of Illinois at Urbana – Champaign... This project, entitled “Multimode Smartphone Biosensor,” is under the direction of Brian Cunningham, Steven S. Lumetta ... This award is effective June 1, 2013 and expires May 31, 2016.... Award: 1264377... PI Name: Cunningham, Brian.... Award Date.... January 14, ????. We plan to integrate four of the most commonly used detection modalities for diagnostic assays into a handheld cradle that interfaces with a smartphone. Incorporation of biosensing into smartphone platforms is a potentially powerful development... Low-cost portable biosensor systems integrated with smartphones may enable diagnostic technology that can be translated for pathogen detection, disease diagnosis, and monitoring of nutritional status... The smartphone biosensor will utilize the internal camera as a spectrometer, and the internal LED as a broadband light source.</p>	<p>A multi-sensor detection system for detecting at least one explosive, nuclear, contraband, chemical, biological, human, radiological agent, or compound, comprising:</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>The wide applicability of the multimode smartphone detection of a biomarker proteins that are used to indicate the nutritional status of children, detection of a toxic chemical that can contaminate harvested corn, detection of mRNA sequences used to identify a bacterial pathogen, and detection of an HIV viral antibody.</p>	<p>a plurality of sensors for detecting at least one chemical, biological, radiological, explosive, nuclear, human, or contraband agent or compound, capable of being disposed within, on, upon or adjacent a multi-sensor detection device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>The wide applicability of the multimode smartphone detection of a biomarker proteins that are used to indicate the nutritional status of children, detection of a toxic chemical that can contaminate harvested corn, detection of mRNA sequences used to identify a bacterial pathogen, and detection of an HIV viral antibody.</p>	<p>monitoring equipment comprising at least one of a computer, personal computer (PC), laptop, notebook PC, handheld, cell phone, personal digital assistant (PDA) or smart phone for at least one of a receipt or transmission of signals therebetween;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>Cellular carriers have extremely precise GPS measurements of the locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range—which may be dozens—and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast initial connection along with improving GPS accuracy.</p>	<p>at least one cell phone tower interconnected to the monitoring equipment for sending signals thereto and receiving signals therefrom or at least one satellite capable of transmitting signals to the monitoring equipment;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one satellite or at least one cell phone tower capable of signal communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one internet connection capable of communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>Cellular carriers have precise GPS measurements of locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast connection along with improving GPS accuracy.</p>	<p>whereupon a signal sent to a receiver of the multi-sensor detection device from a satellite; or to a cell phone tower; or through at least one of a short range radio frequency or a long range radio frequency; causes a signal to be sent to the monitoring equipment that includes at least one of location data or sensor data;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>We plan to integrate four of the most commonly used detection modalities for diagnostic assays into a handheld cradle that interfaces with a smartphone. Incorporation of biosensing into smartphone platforms is a potentially powerful development...Low-cost portable biosensor systems integrated with smartphones may enable diagnostic technology that can be translated for pathogen detection, disease diagnosis, and monitoring of nutritional status... The smartphone biosensor will utilize the internal camera as a spectrometer, and the internal LED as a broadband light source. The wide applicability of the multimode smartphone detection of a biomarker proteins that are used to indicate the nutritional status of children, detection of a toxic chemical that can contaminate harvested corn, detection of mRNA sequences used to identify a bacterial pathogen, and detection of an HIV viral antibody.</p>	<p>wherein the monitoring equipment or multi-sensor detection device receives a signal via any of one or more products of any product grouping categories;</p>	<p>124. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of: sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices...; similarities in material composition of at least one of: steel, stainless steel, composites, brass, copper, aluminum, fiber, silicon, plastic, combining of materials parts or elements to form a whole; similarities in security problems of at least one of: theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
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Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.	wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long range radio frequency connection, or short range radio frequency (RF) connection is capable of signal communication with the transmitter, a receiver of the monitoring equipment, the multi-sensor detection device, or transceivers of the products;	12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).
iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.	wherein the monitoring equipment is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan or signature such that the monitoring device that is at least one of the computer, the laptop, the notebook, the PC, the handheld, the cell phone, the PDA, or the smart phone is locked by the biometric lock disabler to prevent unauthorized use;	99. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting biometric and authentication data including, but is not limited to, fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse and signature.
Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.	wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, long range radio frequency, and short range radio frequency (RF).	25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.

EAGER: Lab-in-a-Smartphone	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims
<p>The National Science Foundation hereby awards a grant of \$300,000 to the Board of Trustees of the University of Illinois at Urbana – Champaign... This project, entitled “EAGER: Lab-in-a-Smartphone,” in under the direction of Brian Cunningham, John Dallesasse... This award starts September 1, 2014 and ends August 31, 2016...Award: 1447893...PI Name: Cunningham, Brian....Award Date: July 3, 2014...an inexpensive approach for integrating sophisticated laboratory analytical tools into smartphones and other mobile devices through custom cradles, circuit boards, or sensors that must be adapted to specific models of phones/tablets...can be integrated with any device through addition of a specially configured CMOS image sensor that performs multiple modes of optical analysis with performance of that of laboratory instruments... Using integrated semiconductor laser diodes and LEDs within the smartphone...data-sharing of smartphone-based sensors will enable distributed networks of sensors to be deployed.</p>	<p>A multi-sensor detection system for detecting at least one explosive, nuclear, contraband, chemical, biological, human, radiological agent, or compound, comprising:</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Smartphones and other devices capable of performing assays that include Enzyme Linked Immunosorbent Assays (ELISA), Polymerase Chain Reaction (PCR), Fluorescent Resonance Energy Transfer (FRET), Photonic Crystal (PC) biosensor, in addition to any other chemical/biological experiment that involves color change.</p>	<p>a plurality of sensors for detecting at least one chemical, biological, radiological, explosive, nuclear, human, or contraband agent or compound, capable of being disposed within, on, upon or adjacent a multi-sensor detection device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>Smartphones and other devices capable of performing assays that include Enzyme Linked Immunosorbent Assays (ELISA), Polymerase Chain Reaction (PCR), Fluorescent Resonance Energy Transfer (FRET), Photonic Crystal (PC) biosensor, in addition to any other chemical/biological experiment that involves color change.</p>	<p>monitoring equipment comprising at least one of a computer, personal computer (PC), laptop, notebook PC, handheld, cell phone, personal digital assistant (PDA) or smart phone for at least one of a receipt or transmission of signals therebetween;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>Cellular carriers have extremely precise GPS measurements of the locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range—which may be dozens—and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast initial connection along with improving GPS accuracy.</p>	<p>at least one cell phone tower interconnected to the monitoring equipment for sending signals thereto and receiving signals therefrom or at least one satellite capable of transmitting signals to the monitoring equipment;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one satellite or at least one cell phone tower capable of signal communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one internet connection capable of communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>Cellular carriers have precise GPS measurements of locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast connection along with improving GPS accuracy.</p>	<p>whereupon a signal sent to a receiver of the multi-sensor detection device from a satellite; or to a cell phone tower; or through at least one of a short range radio frequency or a long range radio frequency; causes a signal to be sent to the monitoring equipment that includes at least one of location data or sensor data;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>integrating sophisticated laboratory analytical tools into smartphones and other mobile devices through custom cradles, circuit boards, or sensors that must be adapted to specific models of phones/tablets....can be integrated with any device through addition of a specially configured CMOS image sensor that performs multiple modes of optical analysis with performance of that of laboratory instruments... Using integrated semiconductor laser diodes and LEDs within the smartphone... The data-sharing capabilities of smartphone-based sensors will enable distributed networks of sensors to be deployed. Smartphones and other devices capable of performing assays that include Enzyme Linked Immunosorbent Assays (ELISA), Polymerase Chain Reaction (PCR), Fluorescent Resonance Energy Transfer (FRET), Photonic Crystal (PC) biosensor, in addition to any other chemical/biological experiment that involves color change.</p>	<p>wherein the monitoring equipment or multi-sensor detection device receives a signal via any of one or more products of any product grouping categories;</p>	<p>124. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of: sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices...; similarities in material composition of at least one of: steel, stainless steel, composites, brass, copper, aluminum, fiber, silicon, plastic, combining of materials parts or elements to form a whole; similarities in security problems of at least one of: theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
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<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long range radio frequency connection, or short range radio frequency (RF) connection is capable of signal communication with the transmitter, a receiver of the monitoring equipment, the multi-sensor detection device, or transceivers of the products;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.</p>	<p>wherein the monitoring equipment is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan or signature such that the monitoring device that is at least one of the computer, the laptop, the notebook, the PC, the handheld, the cell phone, the PDA, or the smart phone is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>99. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting biometric and authentication data including, but is not limited to, fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse and signature.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, long range radio frequency, and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

PFI-BIC "Pathtracker: Smartphone-based for Mobile Infectious Disease Detection	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims
<p>The National Science Foundation hereby awards a grant of \$999,995 to the Board of Trustees of the University of Illinois at Urbana – Champaign... This project, entitled "PFI-BIC – Pathtracker: A smartphone-based system for mobile infectious disease detection and epidemiology," is under the direction of Brian Cunningham, Ian S. Brooks, Rashid Bashir, David Hirschberg, Steven S. Lumetta... This award starts September 1, 2015 and ends August 31, 2018....Award: 1534126...PI Name: Cunningham, Brian...Award Date: August 22, 2016...(PFI-BIC) project "PathTracker: A Smartphone-Based System for Mobile Infectious Disease Detection and Epidemiology...will develop a mobile sensor technology for performing detection and identification of viral and bacterial pathogens through a smartphone-based detection instrument...reactions within a chip that can be "swiped through a custom handheld detection instrument that interfaces with the back-facing camera of a conventional smartphone.</p>	<p>A multi-sensor detection system for detecting at least one explosive, nuclear, contraband, chemical, biological, human, radiological agent, or compound, comprising:</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

Custom handheld detection instrument that interfaces with the back-facing camera of a conventional smartphone. The PathTracker system will enable rapid determination and reporting of instances of infectious disease. Most sensitive and specific approaches for identification of viral or bacterial pathogens.	a plurality of sensors for detecting at least one chemical, biological, radiological, explosive, nuclear, human, or contraband agent or compound, capable of being disposed within, on, upon or adjacent a multi-sensor detection device;	118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.
Custom handheld detection instrument that interfaces with the back-facing camera of a conventional smartphone. The PathTracker system will enable rapid determination and reporting of instances of infectious disease. Most sensitive and specific approaches for identification of viral or bacterial pathogens.	monitoring equipment comprising at least one of a computer, personal computer (PC), laptop, notebook PC, handheld, cell phone, personal digital assistant (PDA) or smart phone for at least one of a receipt or transmission of signals therebetween;	118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.
Cellular carriers have extremely precise GPS measurements of the locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range—which may be dozens—and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast initial connection along with improving GPS accuracy.	at least one cell phone tower interconnected to the monitoring equipment for sending signals thereto and receiving signals therefrom or at least one satellite capable of transmitting signals to the monitoring equipment;	92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one satellite or at least one cell phone tower capable of signal communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one internet connection capable of communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>Cellular carriers have precise GPS measurements of locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast connection along with improving GPS accuracy.</p>	<p>whereupon a signal sent to a receiver of the multi-sensor detection device from a satellite; or to a cell phone tower; or through at least one of a short range radio frequency or a long range radio frequency; causes a signal to be sent to the monitoring equipment that includes at least one of location data or sensor data;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>“PathTracker: A Smartphone-Based System for Mobile Infectious Disease Detection and Epidemiology... will develop a mobile sensor technology for performing detection and identification of viral and bacterial pathogens through a smartphone-based detection instrument... reactions within a chip that can be “swiped through a custom handheld detection instrument that interfaces with the back-facing camera of a conventional smartphone. Custom handheld detection instrument that interfaces with the back-facing camera of a conventional smartphone. The PathTracker system will enable rapid determination and reporting of instances of infectious disease. Most sensitive and specific approaches for identification of viral or bacterial pathogens.</p>	<p>wherein the monitoring equipment or multi-sensor detection device receives a signal via any of one or more products of any product grouping categories;</p>	<p>124. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of: sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices...; similarities in material composition of at least one of: steel, stainless steel, composites, brass, copper, aluminum, fiber, silicon, plastic, combining of materials parts or elements to form a whole; similarities in security problems of at least one of: theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
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Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.	wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long range radio frequency connection, or short range radio frequency (RF) connection is capable of signal communication with the transmitter, a receiver of the monitoring equipment, the multi-sensor detection device, or transceivers of the products;	12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).
iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.	wherein the monitoring equipment is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan or signature such that the monitoring device that is at least one of the computer, the laptop, the notebook, the PC, the handheld, the cell phone, the PDA, or the smart phone is locked by the biometric lock disabler to prevent unauthorized use;	99. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting biometric and authentication data including, but is not limited to, fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse and signature.
Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.	wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, long range radio frequency, and short range radio frequency (RF).	25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.

I-Corps: Ultra-Sensitive Lateral Flow Reporters / Lab-on-Phone Platform	Patent #: 9,589,439; Independent Claim 19	Patent #: RE 43,990; Dependent Claims
<p>The National Science Foundation hereby awards a grant of \$50,000 to University of Houston... This project, entitled "I-Corps: Nanophosphors as Ultra-Sensitive Lateral Flow Reporters in a Lab-on-Phone Platform," is under the direction of Richard Willson... This award starts August 1, 2014 and ends January 31, 2015... Award: 1450552... PI Name: Willson, Richard... Award Date: July 25, 2014... ultrasensitive and quantitative measurement of analyte levels from complex samples through LFTs that use only a cell phone's built-in optics and an inexpensive (a few dollars) plastic attachment for readout... LFTs are expected to constitute a \$4.68 billion global market in 2015... The enhanced sensitivity of nanophosphor-based LFTs, when coupled to the now-ubiquitous cell phone, is expected to make complex diagnostic tests more accessible and decentralized, thereby improving patient outcomes.</p>	<p>A multi-sensor detection system for detecting at least one explosive, nuclear, contraband, chemical, biological, human, radiological agent, or compound, comprising:</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

Using human chorionic gonadotropin (HCG) as the model analyte, a disposable LFT cartridge will be coupled to an inexpensive plastic cell phone attachment and software application to provide an ultra-sensitive, objective, quantitative readout of HCG levels in under 20 minutes.	a plurality of sensors for detecting at least one chemical, biological, radiological, explosive, nuclear, human, or contraband agent or compound, capable of being disposed within, on, upon or adjacent a multi-sensor detection device;	118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.
Using human chorionic gonadotropin (HCG) as the model analyte, a disposable LFT cartridge will be coupled to an inexpensive plastic cell phone attachment and software application to provide an ultra-sensitive, objective, quantitative readout of HCG levels in under 20 minutes.	monitoring equipment comprising at least one of a computer, personal computer (PC), laptop, notebook PC, handheld, cell phone, personal digital assistant (PDA) or smart phone for at least one of a receipt or transmission of signals therebetween;	118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.
Cellular carriers have extremely precise GPS measurements of the locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range—which may be dozens—and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast initial connection along with improving GPS accuracy.	at least one cell phone tower interconnected to the monitoring equipment for sending signals thereto and receiving signals therefrom or at least one satellite capable of transmitting signals to the monitoring equipment;	92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one satellite or at least one cell phone tower capable of signal communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one internet connection capable of communication between the multi-sensor detection device and the monitoring equipment;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>Cellular carriers have precise GPS measurements of locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range and trilateration to find an area that overlaps among them. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast connection along with improving GPS accuracy.</p>	<p>whereupon a signal sent to a receiver of the multi-sensor detection device from a satellite; or to a cell phone tower; or through at least one of a short range radio frequency or a long range radio frequency; causes a signal to be sent to the monitoring equipment that includes at least one of location data or sensor data;</p>	<p>92. The multi-sensor detection system [of claim 81], further comprising a global positioning system (GPS) receiver adapted for communication with at least one satellite.</p>

<p>ultrasensitive and quantitative measurement of analyte levels from complex samples through LFTs that use only a cell phone's built-in optics and an inexpensive (a few dollars) plastic attachment for readout...LFTs are expected to constitute a \$4.68 billion global market in 2015...The enhanced sensitivity of nanophosphor-based LFTs, when coupled to the now-ubiquitous cell phone, is expected to make complex diagnostic tests more accessible and decentralized, thereby improving patient outcomes. Using human chorionic gonadotropin (HCG) as the model analyte, a disposable LFT cartridge will be coupled to an inexpensive plastic cell phone attachment and software application to provide an ultrasensitive, objective, quantitative readout of HCG levels in under 20 minutes.</p>	<p>wherein the monitoring equipment or multi-sensor detection device receives a signal via any of one or more products of any product grouping categories;</p>	<p>124. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of: sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices...; similarities in material composition of at least one of: steel, stainless steel, composites, brass, copper, aluminum, fiber, silicon, plastic, combining of materials parts or elements to form a whole; similarities in security problems of at least one of: theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
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<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long range radio frequency connection, or short range radio frequency (RF) connection is capable of signal communication with the transmitter, a receiver of the monitoring equipment, the multi-sensor detection device, or transceivers of the products;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.</p>	<p>wherein the monitoring equipment is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan or signature such that the monitoring device that is at least one of the computer, the laptop, the notebook, the PC, the handheld, the cell phone, the PDA, or the smart phone is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>99. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting biometric and authentication data including, but is not limited to, fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse and signature.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, long range radio frequency, and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

<p>Apple's iPhone / iPad Camera Biosensor for Facial Heart Rate Monitor</p>	<p>Patent #: 9,096,189; Independent Claim 1</p>	<p>Patent #: RE 43,990; Dependent Claims</p>
<p>A new iPhone app turns your device's camera into a biosensor to measure your heart rate. The app from the Rock Health accelerator program is called Cardiio. The technology was developed by spouses Yukkee and Ming-Zher Poh at MIT's Media Lab. Cardiio is powered by cutting-edge research and science conducted at the MIT Media Lab. Every time your heart beats, more blood is pumped into your face. This slight increase in blood volume causes more light to be absorbed, and hence less light is reflected from your face. Cardiio uses your camera to track these tiny changes in reflected light that are not visible to the human eye and calculate your heart beat. Measurement accuracy is within 3 beats/min of a clinical pulse oximeter when performed at rest in a well-lit environment. Cardiio works: look straight into the front camera of your iPhone/iPad to measure your heart rate from a distance. After a user downloads the app, they hold the iPhone or iPad up to their face in a well-lit area, hold steady for a few seconds, and receive their resting heart rate.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a PDA, a laptop, or a computer terminal for monitoring products, interconnected to a product for communication therebetween, comprising:</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature...</p> <p>99. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting biometric and authentication data including, but is not limited to, fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse and signature.</p> <p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological,... capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Apple chip A8X delivers better CPU and graphics performance than its predecessor. With its 64-bit desktop-class architecture, iPad Air 2 is as powerful as many personal computers. It's power efficient, too, with a 10-hour battery life. The iPhone 6's A8 processor has a dual-core model like the A7, but clocked at a higher frequency. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>at least one of a central processing unit (CPU) for executing and carrying out the instructions of a computer program, a network processor which is specifically targeted at the networking application domain, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a transmitter for transmitting signals and messages to at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a receiver for receiving signals, data or messages from at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.	at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection, or GPS connection;	25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.
Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi).	the communication device is at least a fixed, portable or mobile communication device interconnected to a fixed, portable or mobile product, capable of wired or wireless communication therebetween;	20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.
If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen	whereupon the communication device, is interconnected to a product equipped to receive signals from or send signals to lock or unlock doors, activate or deactivate security systems, activate or deactivate multi-sensor detection systems, or to activate or deactivate cell phone detection systems;	28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.

<p>A new iPhone app turns your device's camera into a biosensor to measure your heart rate. The app from the Rock Health accelerator program is called Cardiiio. The technology was developed by spouses Yukkee and Ming-Zher Poh at MIT's Media Lab. Cardiiio uses your camera to track these tiny changes in reflected light that are not visible to the human eye and calculate your heart beat. Measurement accuracy is within 3 beats/min of a clinical pulse oximeter when performed at rest in a well-lit environment. Cardiiio works: look straight into the front camera of your iPhone/iPad to measure your heart rate from a distance. After a user downloads the app, they hold the iPhone or iPad up to their face in a well-lit area, hold steady for a few seconds, and receive their resting heart rate.</p>	<p>wherein the communication device receives a signal via any of one or more products listed in any of the plurality of product grouping categories;</p>	<p>32. The communication device [of claim 11] wherein the communication device having products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of; sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices, vehicle slowing and stopping devices, specification, development and implementation; similarities in material composition...; similarities in security problems of at least one of; theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection is capable of signal communication with the transmitter and the receiver of the communication device and transceivers of the products;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

<p>Apple's "Touch ID"; a fingerprint identity sensor that makes it easy to get into the iPad device. The biometric "Touch ID" is used with the iPhone 5s or later, iPad Pro, iPad Air 2, or iPad mini 3 or later. Figure 1 image from the 2008 Apple patent 2010082444 showing NFC Logo and fingerprint scanner (e.g., NFC + Fingerprint Scanner). The image displays the NFC Logo at the top and the Fingerprint Sensor at the bottom. The image is from published patent application 2010082444 filed on September 30, 2008 and is now patent [9,026,462] issued May 05, 2015. In this patent Apple speaks a great deal about biometrics and more directly fingerprint scanner built into the face of the illustrated Apple iPhone (#45)</p>	<p>wherein the communication device is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan and signature such that the communication device that is at least one of the cell phone, the smart phone, the desktop, the handheld, the PDA, the laptop or the computer terminal is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, and long and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

<p>Apple's iPhone 5, 5c, 5s, 6, 6 Plus and the iPad interconnected to the Apple Watch</p>	<p>Patent #: 9,096,189; Independent Claim 1</p>	<p>Patent #: RE 43,990; Dependent Claims</p>
<p>The Apple Watch (e.g. multi-sensor detection device: interconnected to monitoring equipment – iPhone / iPad; biosensor for detecting heart rate; leveraged internet and GPS connections; power source battery; CPU; light indicators) The heart rate sensor in Apple Watch uses photoplethysmography (heart rate (HR) and pulse oximeter oxygen saturation (SpO2) from wearable photoplethysmographic (PPG) biosensors). Technology based: Blood is red because it reflects red light and absorbs green light. Apple Watch uses green LED lights paired with light sensitive photodiodes to detect the amount of blood flowing through your wrist. When heart beats, the green light absorption is greater. By flashing its LED lights, Apple Watch can calculate the number of times the heart beats each minute; your heart rate. Apple Watch requires an iPhone 5, 5c, 5s, 6, and 6 Plus. Apple Watch Bluetooth and Wi-Fi; therefore Apple Watch can 'speak' to the iPad. Apple Watch uses GPS and Wi-Fi to track distance; running indoors it uses accelerometer; cycling outdoors, it uses GPS.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a PDA, a laptop, or a computer terminal for monitoring products, interconnected to a product for communication therebetween, comprising:</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p> <p>95. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting identification data, location data, speed data, environment data, power data, and sensor data.</p> <p>99. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting biometric and authentication data including, but is not limited to, fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse and signature.</p>

<p>Apple chip A8X delivers better CPU and graphics performance than its predecessor. With its 64-bit desktop-class architecture, iPad Air 2 is as powerful as many personal computers. It's power efficient, too, with a 10-hour battery life. The iPhone 6's A8 processor has a dual-core model like the A7, but clocked at a higher frequency. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>at least one of a central processing unit (CPU) for executing and carrying out the instructions of a computer program, a network processor which is specifically targeted at the networking application domain, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a transmitter for transmitting signals and messages to at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a receiver for receiving signals, data or messages from at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.	at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection, or GPS connection;	25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.
Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi).	the communication device is at least a fixed, portable or mobile communication device interconnected to a fixed, portable or mobile product, capable of wired or wireless communication therebetween;	20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.
If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen	whereupon the communication device, is interconnected to a product equipped to receive signals from or send signals to lock or unlock doors, activate or deactivate security systems, activate or deactivate multi-sensor detection systems, or to activate or deactivate cell phone detection systems;	28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.

<p>The heart rate sensor in Apple Watch uses photoplethysmography (heart rate (HR) and pulse oximeter oxygen saturation (SpO2) from wearable photoplethysmographic (PPG) biosensors). Blood is red because it reflects red light and absorbs green light. Apple Watch uses green LED lights paired with light sensitive photodiodes to detect the amount of blood flowing through your wrist. When your heart beats, the blood flow in your wrist and the green light absorption is greater. Between beats, less. By flashing its LED lights hundreds of times per second, Apple Watch can calculate the number of times the heart beats each minute; heart rate. Apple Watch requires an iPhone 5, 5c, 5s, 6, and 6 Plus. Apple Watch communicates through a combination of Bluetooth and Wi-Fi; there wouldn't be any issue with the Apple Watch 'speaking' to the iPad. The Apple Watch uses GPS and Wi-Fi in the iPhone to track distance; running indoors it uses accelerometer; cycling outdoors, it uses GPS. The heart rate sensor can also use green and red infrared LEDs.</p>	<p>wherein the communication device receives a signal via any of one or more products listed in any of the plurality of product grouping categories;</p>	<p>32. The communication device [of claim 11] wherein the communication device having products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of; sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices, vehicle slowing and stopping devices, specification, development and implementation; similarities in material composition...; similarities in security problems of at least one of; theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
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<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection is capable of signal communication with the transmitter and the receiver of the communication device and transceivers of the products;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Apple's "Touch ID"; a fingerprint identity sensor that makes it easy to get into the iPad device. The biometric "Touch ID" is used with the iPhone 5s or later, iPad Pro, iPad Air 2, or iPad mini 3 or later. Figure 1 image from the 2008 Apple patent 20100082444 showing NFC Logo and fingerprint scanner (e.g., NFC + Fingerprint Scanner). The image displays the NFC Logo at the top and the Fingerprint Sensor at the bottom. The image is from published patent application 20100082444 filed on September 30, 2008 and is now patent [9,026,462] issued May 05, 2015. In this patent Apple speaks a great deal about biometrics and more directly fingerprint scanner built into the face of the illustrated Apple iPhone (#45)</p>	<p>wherein the communication device is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan and signature such that the communication device that is at least one of the cell phone, the smart phone, the desktop, the handheld, the PDA, the laptop or the computer terminal is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, and long and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
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<p>Apple's iPhone / iPad (monitoring equipment); Apple Watch (detection device); interconnected to the August Smart Lock (locking device)</p>	<p>Patent #: 9,096,189; Independent Claim 1</p>	<p>Patent #: RE 43,990; Dependent Claims</p>
<p>August Smart Lock (e.g. locking device): Apple Watch (e.g. detection device) just got another tool to make life easier: a digital door key on their wrists. Initiate a lock or unlock from your Apple Watch with just a swipe and a tap. Apple Watch requires an iPhone and/or iPad (e.g. monitoring equipment). The functionality comes via the August Smart Lock thanks to an update of the company's iPhone app that allows you to swipe and tap your Apple Watch to open an August Smart Lock-equipped door. Although the Apple Watch functionality is essentially just a porting of August's iPhone app to your wrist, it immediately makes the notion of using the smart door lock a lot more practical and faster than digging your iPhone out to open a door. Starwood hotels made news when it allowed guests to use the Apple Watch to open hotel room doors in roughly 100 of its locations. But August's solution brings the Apple Watch - powered smart home dynamic to the mainstream. The Apple Watch app also instantly sends a notification when someone unlocks your door.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a PDA, a laptop, or a computer terminal for monitoring products, interconnected to a product for communication therebetween, comprising:</p>	<p>22. The communication device [of claim 11] wherein.... equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop.</p> <p>46. The lock disabler system [of claim 33] wherein.... applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop.</p> <p>80. The built-in, embedded multi sensor detection system [of claim 74] wherein the product includes at least one of a built-in, embedded detector case, sensor array, central processing unit (CPU), power source of fuel, electric, solar or battery,... remote internal or external lock disabler, biometric reader, camera, light, video, or interface.</p>

<p>Apple chip A8X delivers better CPU and graphics performance than its predecessor. With its 64-bit desktop-class architecture, iPad Air 2 is as powerful as many personal computers. It's power efficient, too, with a 10-hour battery life. The iPhone 6's A8 processor has a dual-core model like the A7, but clocked at a higher frequency. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>at least one of a central processing unit (CPU) for executing and carrying out the instructions of a computer program, a network processor which is specifically targeted at the networking application domain, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a transmitter for transmitting signals and messages to at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a receiver for receiving signals, data or messages from at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi).</p>	<p>the communication device is at least a fixed, portable or mobile communication device interconnected to a fixed, portable or mobile product, capable of wired or wireless communication therebetween;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>whereupon the communication device, is interconnected to a product equipped to receive signals from or send signals to lock or unlock doors, activate or deactivate security systems, activate or deactivate multi-sensor detection systems, or to activate or deactivate cell phone detection systems;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>August Smart Lock (e.g. locking device): Apple Watch (e.g. detection device) just got another tool to make life easier: a digital door key on their wrists. Initiate a lock or unlock from your Apple Watch with just a swipe and a tap. Apple Watch requires an iPhone and/or iPad (e.g. monitoring equipment). The functionality comes via the August Smart Lock thanks to an update of the company's iPhone app that allows you to swipe and tap your Apple Watch to open an August Smart Lock-equipped door. Although the Apple Watch functionality is essentially just a porting of August's iPhone app to your wrist, it immediately makes the notion of using the smart door lock a lot more practical and faster than digging your iPhone out to open a door. Starwood hotels made news when it allowed guests to use the Apple Watch to open hotel room doors in roughly 100 of its locations. But August's solution brings the Apple Watch - powered smart home dynamic to the mainstream. The Apple Watch app also instantly sends a notification when someone unlocks your door.</p>	<p>wherein the communication device receives a signal via any of one or more products listed in any of the plurality of product grouping categories;</p>	<p>32. The communication device [of claim 11] wherein the communication device having products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of; sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices, vehicle slowing and stopping devices, specification, development and implementation; similarities in material composition... ; similarities in security problems of at least one of; theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
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<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection is capable of signal communication with the transmitter and the receiver of the communication device and transceivers of the products;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Apple's "Touch ID"; a fingerprint identity sensor that makes it easy to get into the iPad device. The biometric "Touch ID" is used with the iPhone 5s or later, iPad Pro, iPad Air 2, or iPad mini 3 or later. Figure 1 image from the 2008 Apple patent 20100082444 showing NFC Logo and fingerprint scanner (e.g., NFC + Fingerprint Scanner). The image displays the NFC Logo at the top and the Fingerprint Sensor at the bottom. The image is from published patent application 20100082444 filed on September 30, 2008 and is now patent [9,026,462] issued May 05, 2015. In this patent Apple speaks a great deal about biometrics and more directly fingerprint scanner built into the face of the illustrated Apple iPhone (#45)</p>	<p>wherein the communication device is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan and signature such that the communication device that is at least one of the cell phone, the smart phone, the desktop, the handheld, the PDA, the laptop or the computer terminal is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, and long and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
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<p>Apple's iPhone / iPad (monitoring equipment); Apple's HomeKit (interface / gateway); August Connect (interface / gateway); interconnected to the August Smart Lock (locking device)</p>	<p>Patent #: 9,096,189; Independent Claim 1</p>	<p>Patent #: RE 43,990; Dependent Claims</p>
<p>August Connect (e.g. interface / gateway): Accessory product to August Smart Lock (e.g. locking device) and unlock your August Smart Lock from anywhere, right from your iOS or Android smartphone. Works with August App. Available for Android and iOS devices. Works with Apple® HomeKit™ (e.g. interface / gateway). Use Siri® on your iPhone®, iPad® or iPod touch® to lock and unlock, and check the status of your August Smart Lock. (The HomeKit logo means an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad e.g. monitoring equipment). The August Connect is an accessory product to the August Smart Lock, and part of the August Smart Home Access System. August Connect requires an August Smart Lock and works with the free August iOS or Android app. Uses Wi-Fi to connect to your phone and Bluetooth to connect to the August Smart Lock. No more fumbling for keys. August Smart Lock auto-locks behind you for peace of mind and automatically unlocks as you approach.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a PDA, a laptop, or a computer terminal for monitoring products, interconnected to a product for communication therebetween, comprising:</p>	<p>22. The communication device [of claim 11] wherein... equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop.</p> <p>46. The lock disabler system [of claim 33] wherein... applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop.</p> <p>80. The built-in, embedded multi sensor detection system [of claim 74] wherein the product includes at least one of a built-in, embedded detector case, sensor array, central processing unit (CPU), power source of fuel, electric, solar or battery,... remote internal or external lock disabler, biometric reader, camera, light, video, or interface.</p>

<p>Apple chip A8X delivers better CPU and graphics performance than its predecessor. With its 64-bit desktop-class architecture, iPad Air 2 is as powerful as many personal computers. It's power efficient, too, with a 10-hour battery life. The iPhone 6's A8 processor has a dual-core model like the A7, but clocked at a higher frequency. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>at least one of a central processing unit (CPU) for executing and carrying out the instructions of a computer program, a network processor which is specifically targeted at the networking application domain, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a transmitter for transmitting signals and messages to at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a receiver for receiving signals, data or messages from at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.	at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection, or GPS connection;	25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.
Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi).	the communication device is at least a fixed, portable or mobile communication device interconnected to a fixed, portable or mobile product, capable of wired or wireless communication therebetween;	20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.
If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen	whereupon the communication device, is interconnected to a product equipped to receive signals from or send signals to lock or unlock doors, activate or deactivate security systems, activate or deactivate multi-sensor detection systems, or to activate or deactivate cell phone detection systems;	28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.

<p>August Connect (e.g. interface / gateway): Accessory product to August Smart Lock (e.g. locking device) and unlock your August Smart Lock from anywhere, right from your iOS or Android smartphone. Works with August App. Available for Android and iOS devices. Works with Apple® HomeKit™ (e.g. interface / gateway). Use Siri® on your iPhone®, iPad® or iPod touch® to lock and unlock, and check the status of your August Smart Lock. (The HomeKit logo means an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad e.g. monitoring equipment). The August Connect is an accessory product to the August Smart Lock, and part of the August Smart Home Access System. August Connect requires an August Smart Lock and works with the free August iOS or Android app. Uses Wi-Fi to connect to your phone and Bluetooth to connect to the August Smart Lock. No more fumbling for keys. August Smart Lock auto-locks behind you for peace of mind and automatically unlocks as you approach.</p>	<p>wherein the communication device receives a signal via any of one or more products listed in any of the plurality of product grouping categories;</p>	<p>32. The communication device [of claim 11] wherein the communication device having products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of; sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices, vehicle slowing and stopping devices, specification, development and implementation; similarities in material composition... ; similarities in security problems of at least one of; theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
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<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection is capable of signal communication with the transmitter and the receiver of the communication device and transceivers of the products;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Apple's "Touch ID"; a fingerprint identity sensor that makes it easy to get into the iPad device. The biometric "Touch ID" is used with the iPhone 5s or later, iPad Pro, iPad Air 2, or iPad mini 3 or later. Figure 1 image from the 2008 Apple patent 20100082444 showing NFC Logo and fingerprint scanner (e.g., NFC + Fingerprint Scanner). The image displays the NFC Logo at the top and the Fingerprint Sensor at the bottom. The image is from published patent application 20100082444 filed on September 30, 2008 and is now patent [9,026,462] issued May 05, 2015. In this patent Apple speaks a great deal about biometrics and more directly fingerprint scanner built into the face of the illustrated Apple iPhone (#45)</p>	<p>wherein the communication device is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face scan, iris scan and signature such that the communication device that is at least one of the cell phone, the smart phone, the desktop, the handheld, the PDA, the laptop or the computer terminal is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, and long and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
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<p>Apple's iPhone / iPad (monitoring equipment); Apple Watch (detection device); interconnected to Ford's MyFord Mobile App (locking device)</p>	<p>Patent #: 9,096,189; Independent Claim 1</p>	<p>Patent #: RE 43,990; Dependent Claims</p>
<p>Ford has updated the MyFord Mobile app (e.g. locking device) for its electric and hybrid cars with Apple Watch (e.g. detection device) compatibility. Apple Watch requires an iPhone and/or iPad (e.g. monitoring equipment). That means from your wrist, you can turn on the temperature controller, lock or unlock the doors, check your mileage, and view data from your last trip, such as miles per gallon and percentage of electric miles driven. It also means you can check your car's battery status, get directions back to your car, and more, all from your Apple Watch or Android Wear device. The MyFord Mobile app, which is available on Android and iOS, has been around since 2012. The update makes some of the app's most important features available on Apple Watch and Android Wear devices and has been specifically designed for each OS, such as round gauges for compatible round Android watch faces and support for Glances in watchOS. There is a catch and that is the app will only play nicely with Ford's battery electric or plug-in hybrid models.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a PDA, a laptop, or a computer terminal for monitoring products, interconnected to a product for communication therebetween, comprising:</p>	<p>22. The communication device [of claim 11] wherein.... equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop.</p> <p>46. The lock disabler system [of claim 33] wherein.... applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop.</p> <p>80. The built-in, embedded multi sensor detection system [of claim 74] wherein the product includes at least one of a built-in, embedded detector case, sensor array, central processing unit (CPU), power source of fuel, electric, solar or battery,... remote internal or external lock disabler, biometric reader, camera, light, video, or interface.</p>

<p>Apple chip A8X delivers better CPU and graphics performance than its predecessor. With its 64-bit desktop-class architecture, iPad Air 2 is as powerful as many personal computers. It's power efficient, too, with a 10-hour battery life. The iPhone 6's A8 processor has a dual-core model like the A7, but clocked at a higher frequency. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>at least one of a central processing unit (CPU) for executing and carrying out the instructions of a computer program, a network processor which is specifically targeted at the networking application domain, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a transmitter for transmitting signals and messages to at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a receiver for receiving signals, data or messages from at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.	at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection, or GPS connection;	25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.
Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi).	the communication device is at least a fixed, portable or mobile communication device interconnected to a fixed, portable or mobile product, capable of wired or wireless communication therebetween;	20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.
If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen	whereupon the communication device, is interconnected to a product equipped to receive signals from or send signals to lock or unlock doors, activate or deactivate security systems, activate or deactivate multi-sensor detection systems, or to activate or deactivate cell phone detection systems;	28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.

<p>Ford has updated the MyFord Mobile app (e.g. locking device) for its electric and hybrid cars with Apple Watch (e.g. detection device) compatibility. Apple Watch requires an iPhone and/or iPad (e.g. monitoring equipment). That means from your wrist, you can turn on the temperature controller, lock or unlock the doors, check your mileage, and view data from your last trip, such as miles per gallon and percentage of electric miles driven. It also means you can check your car's battery status, get directions back to your car, and more, all from your Apple Watch or Android Wear device. The MyFord Mobile app, which is available on Android and iOS, has been around since 2012. The update makes some of the app's most important features available on Apple Watch and Android Wear devices and has been specifically designed for each OS, such as round gauges for compatible round Android watch faces and support for Glances in watchOS. There is a catch and that is the app will only play nicely with Ford's battery electric or plug-in hybrid models.</p>	<p>wherein the communication device receives a signal via any of one or more products listed in any of the plurality of product grouping categories;</p>	<p>32. The communication device [of claim 11] wherein the communication device having products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of; sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices, vehicle slowing and stopping devices, specification, development and implementation; similarities in material composition... ; similarities in security problems of at least one of; theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.</p>
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<p>Every iPhone and iPad ever made has both Wi-Fi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of Wi-Fi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein at least one satellite connection, Bluetooth connection, Wi-Fi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection is capable of signal communication with the transmitter and the receiver of the communication device and transceivers of the products;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Apple's "Touch ID"; a fingerprint identity sensor that makes it easy to get into the iPad device. The biometric "Touch ID" is used with the iPhone 5s or later, iPad Pro, iPad Air 2, or iPad mini 3 or later. Figure 1 image from the 2008 Apple patent 20100082444 showing NFC Logo and fingerprint scanner (e.g., NFC + Fingerprint Scanner). The image displays the NFC Logo at the top and the Fingerprint Sensor at the bottom. The image is from published patent application 20100082444 filed on September 30, 2008 and is now patent [9,026,462] issued May 05, 2015. In this patent Apple speaks a great deal about biometrics and more directly fingerprint scanner built into the face of the illustrated Apple iPhone (#45)</p>	<p>wherein the communication device is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan and signature such that the communication device that is at least one of the cell phone, the smart phone, the desktop, the handheld, the PDA, the laptop or the computer terminal is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails.</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, and long and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
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Samsung Galaxy s6 "Fingertip Heart Rate Monitor"	Patent #: 9,096,189; Independent Claim 1	Patent #: RE 43,990; Dependent Claims
<p>Samsung included in the Galaxy S5 and S6 (e.g. multi-sensor detection device) its built-in Heart Rate Monitor, letting you keep up on your health with no additional accessories required. Even better, Samsung integrated its heart rate sensing technology into the same housing that holds the camera's LED flash. The Galaxy S5 and S6 handles all health-related functions — including its Heart Rate Monitor — in Samsung's S Health app on your phone. You'll be taken to a screen that gives you a prompt to place your finger on the heart rate sensor, which can be found on the back of the phone. The Samsung Galaxy S5 and S6, a phone (e.g. cell phone detection device) with a built-in monitor that measures heart rate from your fingertip using an optical sensor, tested almost exactly in sync with the EKG. The Galaxy S5 and S6's accuracy comes down to biology. Unlike the slow-pumping capillaries in your wrist, there is an arterial vessel at the tip of your forefinger. It keeps up with the fastest pulsations of your heart, and thanks to the translucency of the fingertip's skin, it's easy to read.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a PDA, a laptop, or a computer terminal for monitoring products, interconnected to a product for communication therebetween, comprising:</p>	<p>30. The communication device of [claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p> <p>118. The multi-sensor detection system of [claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Samsung Galaxy s6 CPU (Central Processing Unit) - otherwise known as a processor - is an electronic circuit that can execute computer programs. The Samsung Galaxy S6 SM-G920i 32GB is a good Android phone with 2100 MHz processor 8-core that allows the user run heavy applications. The Samsung Galaxy S6 smartphones and tablets don't just use "processors", they use what's called a System-on-a-chip (SoC). The SoC is the equivalent of a computer motherboard, including main processor, graphics processor and memory, on a single chip. The CPU is nonetheless a must-have component of the SoC. Modern SoCs have two, and soon four, processors cores ("multi-core")</p>	<p>at least one of a central processing unit (CPU) for executing and carrying out the instructions of a computer program, a network processor which is specifically targeted at the networking application domain, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 "Fingerprint Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a transmitter for transmitting signals and messages to at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device) the phone. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a receiver for receiving signals, data or messages from at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X</p>	<p>at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Seven wireless interfaces now found in the Samsung Galaxy S6 high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging</p>	<p>the communication device is at least a fixed, portable or mobile communication device interconnected to a fixed, portable or mobile product, capable of wired or wireless communication therebetween;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>

<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device). Thereby activating or deactivating a security system.</p>	<p>whereupon the communication device, is interconnected to a product equipped to receive signals from or send signals to lock or unlock doors, activate or deactivate security systems, activate or deactivate multi-sensor detection systems, or to activate or deactivate cell phone detection systems;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>A 122 page report focuses on the evolution of the seven wireless interfaces now found in the high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging. Smartphones today include receivers for GPS (US), GLONASS (Russia), and Beidou COMPASS (China). New regional satellite navigation systems from Japan (QZSS) and India (IRNSS) are being introduced over the coming several years. The Bluetooth Low Energy / Smart standard is migrating to the new v4.2 revision. This new personal area wireless networking standard revision enables some compelling use cases that leading smartphone OEMs are likely to rapidly adopt and deploy. Bluetooth Smart potentially has a role to play in wireless battery charging as a control and status side-channel mechanism, synergistically linking these two wireless subsystems.</p>	<p>wherein the communication device receives a signal via any of one or more products listed in any of the plurality of product grouping categories;</p>	<p>32. The communication device [of claim 11] wherein the communication device having products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of; sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices, vehicle slowing and stopping devices, specification, development and implementation; similarities in material composition...; similarities in security problems of at least one of; theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices network of ubiquitous sensing and detecting.</p>

<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X</p>	<p>wherein at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection is capable of signal communication with the transmitter and the receiver of the communication device and transceivers of the products;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>After several unsuccessful log-in attempts, a Samsung device automatically locks itself up as a security feature. A user is given chances to correctly enter their credentials but they are not that many. If the user is unable to log in to the phone after doing all the available security layers, there's no other option left for the user to do but factory reset. Samsung only allows you to register 4 fingerprints to set-up the fingerprint scanner; a security feature for easy log-in and lock-out. One major feature that Samsung added to its Galaxy line of smartphones was the heart rate monitor. The health-focused technology heart rate sensor is cleverly positioned on the back of the phone and embedded into the same opening as the LED flash.</p>	<p>wherein the communication device is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan and signature such that the communication device that is at least one of the cell phone, the smart phone, the desktop, the handheld, the PDA, the laptop or the computer terminal is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, Wi-Fi, internet, radio frequency (RF), cellular, broadband, and long and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
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Samsung Galaxy s6 interconnected to the "Samsung Gear S2 Smartwatch"	Patent #: 9,096,189; Independent Claim 1	Patent #: RE 43,990; Dependent Claims
<p>The Samsung Gear S2 smartwatch (e.g. multi-sensor detection device: interconnected to monitoring equipment – Samsung Galaxy s6; biosensor for detecting heart rate; leveraged internet and GPS connections; power source battery) has a solid health tracking and slightly better battery life than other high-end smartwatches. It works with a variety of Android phones. Before using your Gear S2, you will need to connect it to a mobile device (e.g. Galaxy S6) using the Samsung Gear application. On the Galaxy s6, download the Samsung Gear application by going to Google Play™ store or from Galaxy Apps. The application must be installed on the mobile device (e.g. Galaxy S6) before you can begin the connection process. Best compatibility, connect with Samsung Galaxy devices. The Gear S2 sensors include: Accelerometer; Gyroscope; Heart Rate; Ambient Light; and, Barometer. Connectivity include: 802.11n WiFi; Bluetooth 4.1; NFC. GPS include: The Gear S2 3G includes a GPS receiver and two apps, Nike+ and S Health, that include GPS tracking support.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a PDA, a laptop, or a computer terminal for monitoring products, interconnected to a product for communication therebetween, comprising:</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p> <p>95. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting identification data, location data, speed data, environment data, power data, and sensor data.</p> <p>99. The multi-sensor detection system [of claim 81], wherein the multi sensor detection device is capable of transmitting biometric and authentication data including, but is not limited to, fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse and signature.</p>

<p>Samsung Galaxy s6 CPU (Central Processing Unit) - otherwise known as a processor - is an electronic circuit that can execute computer programs. The Samsung Galaxy S6 SM-G920i 32GB is a good Android phone with 2100 MHz processor 8-core that allows the user run heavy applications. The Samsung Galaxy S6 smartphones and tablets don't just use "processors", they use what's called a System-on-a-chip (SoC). The SoC is the equivalent of a computer motherboard, including main processor, graphics processor and memory, on a single chip. The CPU is nonetheless a must-have component of the SoC. Modern SoCs have two, and soon four, processors cores ("multi-core")</p>	<p>at least one of a central processing unit (CPU) for executing and carrying out the instructions of a computer program, a network processor which is specifically targeted at the networking application domain, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 "Fingerprint Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a transmitter for transmitting signals and messages to at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device) the phone. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a receiver for receiving signals, data or messages from at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X</p>	<p>at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Seven wireless interfaces now found in the Samsung Galaxy S6 high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging</p>	<p>the communication device is at least a fixed, portable or mobile communication device interconnected to a fixed, portable or mobile product, capable of wired or wireless communication therebetween;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>

<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device). Thereby activating or deactivating a security system.</p>	<p>whereupon the communication device, is interconnected to a product equipped to receive signals from or send signals to lock or unlock doors, activate or deactivate security systems, activate or deactivate multi-sensor detection systems, or to activate or deactivate cell phone detection systems;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>A 122 page report focuses on the evolution of the seven wireless interfaces now found in the high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging. Smartphones today include receivers for GPS (US), GLONASS (Russia), and Beidou COMPASS (China). New regional satellite navigation systems from Japan (QZSS) and India (IRNSS) are being introduced over the coming several years. The Bluetooth Low Energy / Smart standard is migrating to the new v4.2 revision. This new personal area wireless networking standard revision enables some compelling use cases that leading smartphone OEMs are likely to rapidly adopt and deploy. Bluetooth Smart potentially has a role to play in wireless battery charging as a control and status side-channel mechanism, synergistically linking these two wireless subsystems.</p>	<p>wherein the communication device receives a signal via any of one or more products listed in any of the plurality of product grouping categories;</p>	<p>32. The communication device [of claim 11] wherein the communication device having products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of; sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices, vehicle slowing and stopping devices, specification, development and implementation; similarities in material composition... ; similarities in security problems of at least one of; theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices network of ubiquitous sensing and detecting.</p>

<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X</p>	<p>wherein at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection is capable of signal communication with the transmitter and the receiver of the communication device and transceivers of the products;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>After several unsuccessful log-in attempts, a Samsung device automatically locks itself up as a security feature. A user is given chances to correctly enter their credentials but they are not that many. If the user is unable to log in to the phone after doing all the available security layers, there's no other option left for the user to do but factory reset. Samsung only allows you to register 4 fingerprints to set-up the fingerprint scanner; a security feature for easy log-in and lock-out. One major feature that Samsung added to its Galaxy line of smartphones was the heart rate monitor. The health-focused technology heart rate sensor is cleverly positioned on the back of the phone and embedded into the same opening as the LED flash.</p>	<p>wherein the communication device is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan and signature such that the communication device that is at least one of the cell phone, the smart phone, the desktop, the handheld, the PDA, the laptop or the computer terminal is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X</p>	<p>wherein the only type or types of communication with the transmitter and the receiver of the communication device and transceivers of the products is a type or types selected from the group consisting of satellite, Bluetooth, WiFi, internet, radio frequency (RF), cellular, broadband, and long and short range radio frequency (RF).</p>	<p>25. The communication device of [claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
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<p>Samsung Galaxy s6 (smartphone) and Samsung Gear S2 (smartwatch) interconnected to the "Yale Assure Lock" (locking device)</p>	<p>Patent #: 9,096,189; Independent Claim 1</p>	<p>Patent #: RE 43,990; Dependent Claims</p>
<p>The Assure Lock with Bluetooth has five digital keys sent to the Digital Keys app by a Yale central server computer. The Assure companion app is available for iOS and Android devices and the Samsung Galaxy Gear S2 smartwatch. The Gear S2, will need to be connected to a mobile device (e.g. Galaxy S6). The lock communicates with the app only via Bluetooth, the phone must be within 30 feet to work with it. Unlocking the Assure Lock with a Gear S2, users touch the screen to activate the digital key. Then, touch the lock screen to unlock the deadbolt. It isn't only for Samsung's smartwatch, it works with iOS and Android phones via the compatible app; gesture controls on smartphones. Only Samsung Gear S2; company will update its Android and iOS app for compatibility with related smartwatches. Yale's Look Door Viewer; a video doorbell that detects when people approach your door, allows you to see them from the Viewer smartphone app. When you approach the door, it automatically connects to the Yale app on the phone and lets you unlock your door with your smartphone.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a PDA, a laptop, or a computer terminal for monitoring products, interconnected to a product for communication therebetween, comprising:</p>	<p>22. The communication device [of claim 11] wherein... equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop.</p> <p>46. The lock disabler system [of claim 33] wherein... applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop.</p> <p>80. The built-in, embedded multi sensor detection system [of claim 74] wherein the product includes at least one of a built-in, embedded detector case, sensor array, central processing unit (CPU), power source of fuel, electric, solar or battery... remote internal or external lock disabler, biometric reader, camera, light, video, or interface.</p>

<p>Samsung Galaxy s6 CPU (Central Processing Unit) - otherwise known as a processor - is an electronic circuit that can execute computer programs. The Samsung Galaxy S6 SM-G920i 32GB is a good Android phone with 2100 MHz processor 8-core that allows the user run heavy applications. The Samsung Galaxy S6 smartphones and tablets don't just use "processors", they use what's called a System-on-a-chip (SoC). The SoC is the equivalent of a computer motherboard, including main processor, graphics processor and memory, on a single chip. The CPU is nonetheless a must-have component of the SoC. Modern SoCs have two, and soon four, processors cores ("multi-core")</p>	<p>at least one of a central processing unit (CPU) for executing and carrying out the instructions of a computer program, a network processor which is specifically targeted at the networking application domain, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a transmitter for transmitting signals and messages to at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device) the phone. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a receiver for receiving signals, data or messages from at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X</p>	<p>at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Seven wireless interfaces now found in the Samsung Galaxy S6 high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging</p>	<p>the communication device is at least a fixed, portable or mobile communication device interconnected to a fixed, portable or mobile product, capable of wired or wireless communication therebetween;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>

<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device). Thereby activating or deactivating a security system.</p>	<p>whereupon the communication device, is interconnected to a product equipped to receive signals from or send signals to lock or unlock doors, activate or deactivate security systems, activate or deactivate multi-sensor detection systems, or to activate or deactivate cell phone detection systems;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>A 122 page report focuses on the evolution of the seven wireless interfaces now found in the high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging. Smartphones today include receivers for GPS (US), GLONASS (Russia), and Beidou COMPASS (China). New regional satellite navigation systems from Japan (QZSS) and India (IRNSS) are being introduced over the coming several years. The Bluetooth Low Energy / Smart standard is migrating to the new v4.2 revision. This new personal area wireless networking standard revision enables some compelling use cases that leading smartphone OEMs are likely to rapidly adopt and deploy. Bluetooth Smart potentially has a role to play in wireless battery charging as a control and status side-channel mechanism, synergistically linking these two wireless subsystems.</p>	<p>wherein the communication device receives a signal via any of one or more products listed in any of the plurality of product grouping categories;</p>	<p>32. The communication device [of claim 11] wherein the communication device having products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of; sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices, vehicle slowing and stopping devices, specification, development and implementation; similarities in material composition... ; similarities in security problems of at least one of; theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices network of ubiquitous sensing and detecting.</p>

<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X</p>	<p>wherein at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection is capable of signal communication with the transmitter and the receiver of the communication device and transceivers of the products;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>After several unsuccessful log-in attempts, a Samsung device automatically locks itself up as a security feature. A user is given chances to correctly enter their credentials but they are not that many. If the user is unable to log in to the phone after doing all the available security layers, there's no other option left for the user to do but factory reset. Samsung only allows you to register 4 fingerprints to set-up the fingerprint scanner; a security feature for easy log-in and lock-out. One major feature that Samsung added to its Galaxy line of smartphones was the heart rate monitor. The health-focused technology heart rate sensor is cleverly positioned on the back of the phone and embedded into the same opening as the LED flash.</p>	<p>wherein the communication device is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan and signature such that the communication device that is at least one of the cell phone, the smart phone, the desktop, the handheld, the PDA, the laptop or the computer terminal is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

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<p>Samsung Galaxy s6 (smartphone) and "Samsung SmartThings Hub" (interface-gateway) interconnected to the Yale Assure Lock (locking device)</p>	<p>Patent #: 9,096,189; Independent Claim 1</p>	<p>Patent #: RE 43,990; Dependent Claims</p>
<p>The SmartThings app turns the Samsung Galaxy S6 smartphone into a remote to control all of the smart devices in your home. Available for download for Android, iOS and Windows. The Samsung SmartThings Hub communicates information from your smartphone to all of your different connected products—regardless of their wireless protocol—so that you can easily monitor and control them from the free SmartThings app. Anyone with broadband Internet connection can easily set up their Hub. By adding a compatible camera, customers can also get accompanying video clips. Allows you to connect all of your different smart locks (e.g. Yale Assure Lock), lights, outlets, and thermostats. Once the Samsung SmartThings Hub and SmartThings app is set-up; can add as many devices as wanted to customize the home. Works with the following brands: Samsung, Honeywell, Schlage, and Yale, First alert, D-Link, Leviton, Bose, Cree, and others.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a PDA, a laptop, or a computer terminal for monitoring products, interconnected to a product for communication therebetween, comprising:</p>	<p>22. The communication device [of claim 11] wherein... equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop.</p> <p>46. The lock disabler system [of claim 33] wherein... applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop.</p> <p>80. The built-in, embedded multi sensor detection system [of claim 74] wherein the product includes at least one of a built-in, embedded detector case, sensor array, central processing unit (CPU), power source of fuel, electric, solar or battery... remote internal or external lock disabler, biometric reader, camera, light, video, or interface.</p>

<p>Samsung Galaxy s6 CPU (Central Processing Unit) - otherwise known as a processor - is an electronic circuit that can execute computer programs. The Samsung Galaxy S6 SM-G920i 32GB is a good Android phone with 2100 MHz processor 8-core that allows the user run heavy applications. The Samsung Galaxy S6 smartphones and tablets don't just use "processors", they use what's called a System-on-a-chip (SoC). The SoC is the equivalent of a computer motherboard, including main processor, graphics processor and memory, on a single chip. The CPU is nonetheless a must-have component of the SoC. Modern SoCs have two, and soon four, processors cores ("multi-core")</p>	<p>at least one of a central processing unit (CPU) for executing and carrying out the instructions of a computer program, a network processor which is specifically targeted at the networking application domain, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 "Fingerprint Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a transmitter for transmitting signals and messages to at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device) the phone. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a receiver for receiving signals, data or messages from at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X</p>	<p>at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Seven wireless interfaces now found in the Samsung Galaxy S6 high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging</p>	<p>the communication device is at least a fixed, portable or mobile communication device interconnected to a fixed, portable or mobile product, capable of wired or wireless communication therebetween;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>

<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device). Thereby activating or deactivating a security system.</p>	<p>whereupon the communication device, is interconnected to a product equipped to receive signals from or send signals to lock or unlock doors, activate or deactivate security systems, activate or deactivate multi-sensor detection systems, or to activate or deactivate cell phone detection systems;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>A 122 page report focuses on the evolution of the seven wireless interfaces now found in the high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging. Smartphones today include receivers for GPS (US), GLONASS (Russia), and Beidou COMPASS (China). New regional satellite navigation systems from Japan (QZSS) and India (IRNSS) are being introduced over the coming several years. The Bluetooth Low Energy / Smart standard is migrating to the new v4.2 revision. This new personal area wireless networking standard revision enables some compelling use cases that leading smartphone OEMs are likely to rapidly adopt and deploy. Bluetooth Smart potentially has a role to play in wireless battery charging as a control and status side-channel mechanism, synergistically linking these two wireless subsystems.</p>	<p>wherein the communication device receives a signal via any of one or more products listed in any of the plurality of product grouping categories;</p>	<p>32. The communication device [of claim 11] wherein the communication device having products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of; sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices, vehicle slowing and stopping devices, specification, development and implementation; similarities in material composition... ; similarities in security problems of at least one of; theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices network of ubiquitous sensing and detecting.</p>

<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X</p>	<p>wherein at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection is capable of signal communication with the transmitter and the receiver of the communication device and transceivers of the products;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>After several unsuccessful log-in attempts, a Samsung device automatically locks itself up as a security feature. A user is given chances to correctly enter their credentials but they are not that many. If the user is unable to log in to the phone after doing all the available security layers, there's no other option left for the user to do but factory reset. Samsung only allows you to register 4 fingerprints to set-up the fingerprint scanner; a security feature for easy log-in and lock-out. One major feature that Samsung added to its Galaxy line of smartphones was the heart rate monitor. The health-focused technology heart rate sensor is cleverly positioned on the back of the phone and embedded into the same opening as the LED flash.</p>	<p>wherein the communication device is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan and signature such that the communication device that is at least one of the cell phone, the smart phone, the desktop, the handheld, the PDA, the laptop or the computer terminal is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

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<p>Samsung Galaxy s6 (smartphone) and Samsung Gear S2 (smartwatch) interconnected to the "Volkswagen Car-Net e-Remote" (locking device)</p>	<p>Patent #: 9,096,189; Independent Claim 1</p>	<p>Patent #: RE 43,990; Dependent Claims</p>
<p>Samsung have created a new version of the Volkswagen app which gives you control over key features of your car directly from your smartwatch – in this instance, the Samsung Gear S2. The Gear S2, will need to be connected to a mobile device (e.g. Galaxy S6). The new app, Volkswagen Car-Net e-Remote, if you own a VW and a Gear S2, enables you to check that your car is locked with a little tinker of your smartwatch. Users will be able to lock/unlock car doors, open/close windows, control climate settings, and even find out where their car is parked from the Gear S2 smartwatch. Volkswagen makes two applications, Car-Net for the United States and e-Remote for Europe. Both offer the ability to check if the car doors are locked, turning on the AC on car and stop charging for electric vehicles. Samsung's partnership with Volkswagen, for smartphone connections via Car Mode for Galaxy, an app powered by MirrorLink. Car Mode for Galaxy, is controlled by both touch and voice powered by S-Voice, enables phone calls.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a PDA, a laptop, or a computer terminal for monitoring products, interconnected to a product for communication therebetween, comprising:</p>	<p>22. The communication device [of claim 11] wherein... equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop.</p> <p>46. The lock disabler system [of claim 33] wherein... applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop.</p> <p>80. The built-in, embedded multi sensor detection system [of claim 74] wherein the product includes at least one of a built-in, embedded detector case, sensor array, central processing unit (CPU), power source of fuel, electric, solar or battery... remote internal or external lock disabler, biometric reader, camera, light, video, or interface.</p>

<p>Samsung Galaxy s6 CPU (Central Processing Unit) - otherwise known as a processor - is an electronic circuit that can execute computer programs. The Samsung Galaxy S6 SM-G920i 32GB is a good Android phone with 2100 MHz processor 8-core that allows the user run heavy applications. The Samsung Galaxy S6 smartphones and tables don't just use "processors", they use what's called a System-on-a-chip (SoC). The SoC is the equivalent of a computer motherboard, including main processor, graphics processor and memory, on a single chip. The CPU is nonetheless a must-have component of the SoC. Modern SoCs have two, and soon four, processors cores ("multi-core")</p>	<p>at least one of a central processing unit (CPU) for executing and carrying out the instructions of a computer program, a network processor which is specifically targeted at the networking application domain, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a transmitter for transmitting signals and messages to at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device) the phone. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a receiver for receiving signals, data or messages from at least one of plurality product groups based on the categories of a multi-sensor detection device, a maritime cargo container, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X</p>	<p>at least one satellite connection, Bluetooth connection, WiFi connection, internet connection, radio frequency (RF) connection, cellular connection, broadband connection, long and short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Seven wireless interfaces now found in the Samsung Galaxy S6 high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging</p>	<p>the communication device is at least a fixed, portable or mobile communication device interconnected to a fixed, portable or mobile product, capable of wired or wireless communication therebetween;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>

<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device). Thereby activating or deactivating a security system.</p>	<p>whereupon the communication device, is interconnected to a product equipped to receive signals from or send signals to lock or unlock doors, activate or deactivate security systems, activate or deactivate multi-sensor detection systems, or to activate or deactivate cell phone detection systems;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>A 122 page report focuses on the evolution of the seven wireless interfaces now found in the high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging. Smartphones today include receivers for GPS (US), GLONASS (Russia), and Beidou COMPASS (China). New regional satellite navigation systems from Japan (QZSS) and India (IRNSS) are being introduced over the coming several years. The Bluetooth Low Energy / Smart standard is migrating to the new v4.2 revision. This new personal area wireless networking standard revision enables some compelling use cases that leading smartphone OEMs are likely to rapidly adopt and deploy. Bluetooth Smart potentially has a role to play in wireless battery charging as a control and status side-channel mechanism, synergistically linking these two wireless subsystems.</p>	<p>wherein the communication device receives a signal via any of one or more products listed in any of the plurality of product grouping categories;</p>	<p>32. The communication device [of claim 11] wherein the communication device having products to be monitored, the devices that are monitoring, communication devices, communication equipment can be grouped into anti-terrorist product groupings based on the categories of similarities of design of at least one of; sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices, vehicle slowing and stopping devices, specification, development and implementation; similarities in material composition... ; similarities in security problems of at least one of; theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices network of ubiquitous sensing and detecting.</p>

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<p>After several unsuccessful log-in attempts, a Samsung device automatically locks itself up as a security feature. A user is given chances to correctly enter their credentials but they are not that many. If the user is unable to log in to the phone after doing all the available security layers, there's no other option left for the user to do but factory reset. Samsung only allows you to register 4 fingerprints to set-up the fingerprint scanner; a security feature for easy log-in and lock-out. One major feature that Samsung added to its Galaxy line of smartphones was the heart rate monitor. The health-focused technology heart rate sensor is cleverly positioned on the back of the phone and embedded into the same opening as the LED flash.</p>	<p>wherein the communication device is equipped with a biometric lock disabler that incorporates at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan and signature such that the communication device that is at least one of the cell phone, the smart phone, the desktop, the handheld, the PDA, the laptop or the computer terminal is locked by the biometric lock disabler to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

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